APPENDIX D

CAROLINA CLEAR CONTRACT

BOARD: Paul C. Aughtry, III Chairman Edwin H. Cooper, III Vice Chairman

Steven G. Kisner

Secretary

DHE C

Henry C. Scott M. David Mitchell, MD Glenn A. McCall

BOARD:

Coleman F. Buckhouse, MD

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment

October 23, 2008

City of Charleston Joseph P. Riley, Jr., Mayor 80 Broad Street Charleston, SC 29401

Re:

South Carolina NPDES General Permit for Storm Water Discharges from

Small Municipal Separate Storm Sewer System (MS4s) Permit # SCR030000

City of Charleston Certificate # SCR031901

Inspection of Minimum Control Measures (MCM) 1 & 2

Inspector: Connie Anderson

Honorable Mayor Riley:

The Department conducted a compliance review of the City's MS4 Program. MCM 1 – Public Education and Outreach on Storm Water Impacts and MCM 2 – Public Involvement/Participation were examined on September 23, 2008 and found to be in compliance with permit requirements. Based on the findings of the inspection, a rating of Satisfactory has been assigned to the development of these MCMs.

Please be advised that Permit SCR030000 is consistent with the Environmental Protection Agency's iterative approach to storm water management. The City should evaluate the effectiveness of MCM 1 and 2 annually, and revise the Storm Water Management Plan when necessary.

If you have any questions about the review, please feel free to call me at 803.898.4148.

Regards,

Connie Anderson

Storm Water Compliance Manager

Cornie anderson

Water Pollution Compliance Section

Bureau of Water

andersc1@dhec.sc.gov

cc: Christine Sanford-Coker, Region 7, Charleston EQC

Shannon Hicks, OCRM Charleston







CLERK OF COUNCIL

JOSEPH P. RILEY, JR. MAYOR

South Carolina

Clerk of Council Department

April 23, 2008

Mr. Steve Bedard, CFO City of Charleston 116 Meeting Street Charleston, SC 29401

Re: STORMWATER EDUCATION AND OUTREACH

Dear Mr. Bedard:

Enclosed please find a fully executed agreement in the amount of \$35,000 to enter into the Ashley Cooper Stormwater Education Consortium and join in a Memorandum of Understanding with Clemson University in order to participate in Carolina Clear. Funds will come from account #050310-52238.

Sincerely,

Tanya U/Noonar

Assistant Clerk of Council

Enclosure: As Stated

c: Mayor Joseph P. Riley, Jr. (w/o documents)

Bob Miracle (w/o documents)
Laura Cabiness (w/ one copy)



Memorandum of Understanding

between

CLEMSON UNIVERSITY

and

The City of Charleston

WHEREAS, Clemson University (hereinafter, CLEMSON) possesses in its Extension faculty and staff various levels of expertise concerning stormwater compliance requirements as promulgated by SC DHEC and USEPA, and

WHEREAS, <u>The City of Charleston</u> is desirous of obtaining access to education and public awareness of stormwater; and

WHEREAS, Clemson University has developed an environmental program (Carolina Clear), portions of which apply to the impact of stormwater on natural resources;

THEREFORE, be it resolved that since one of the goals of the Carolina Clear program is to educate people about the impacts of stormwater and since this program provides educational opportunities to address a broad range of water quality issues including the impact of stormwater on natural resources, Clemson and The City of Charleston will collaborate to address stormwater education. Carolina Clear is a comprehensive approach developed by Clemson University Cooperative Extension Service to inform and educate communities about, among other issues, water quality, water quantity and the cumulative effects of stormwater. Carolina Clear addresses the special significance of South Carolina's water resources and the role these resources play in the state's economy, environmental health, and overall quality of life.

In order to help <u>The City of Charleston</u> satisfy the Public Education and Outreach Minimum Control Measure as required by the EPA Phase II Storm Water Program, the Clemson University Cooperative Extension Service (CUCES) proposes to utilize selected components of the Carolina Clear program in order to

- Implement a public education program to distribute education materials to <u>The City of Charleston</u>, or conduct equivalent outreach activities about the impacts of stormwater and the steps that can be taken to reduce storm water pollution; and
- Determine the appropriate public awareness campaign with <u>The City of Charleston</u>. Some program implementation approaches, BMPs (i.e., the program

actions/activities), and measurable goals are contained in the individual agreement and seek to

- o Form partnerships,
- o Use education materials and strategies, and
- o Reach diverse audiences.

In order to satisfy the Public Participation/Involvement Minimum Control Measure, the Clemson Cooperative Extension Service proposes to

- When asked and as appropriate, assist local entities with complying with applicable local public notice requirements,
- Provide program accountability measures which provide feedback and reporting data to include number of people contacted, publications produced and distributed, and other specifics as appropriate, and
- Other programs and measures as specified in the Contractual Agreement.

Because each agreement is unique to the requirements of the circumstances, Clemson and The City of Charleston agree that the specific metrics of each contract shall be individually negotiated and delineated in the Scope of Services Agreement. Neither party has any responsibility for any performance obligations except as indicated in a subsequently negotiated Scope of Services Agreement.

This Memorandum of Understanding will commence upon the date of the signature of the last party to this contract and will run thereafter for a period of five (5) years from the date of the last signature. The parties may agree in writing to extend this agreement for an additional 5-year period, provided such agreement is executed no later than 30 days prior to the expiration of this contract. No amendments, changes or modifications will be effective until and unless reduced to writing and signed by the parties. Either party may cancel this agreement upon the giving of 30 days written notice.

John Kelly, Vice President

Clemson University PSA

Date

Cide of Ca(Name, Title)

Date





JUL 2 2 2008

JOSEPH P. RILEY, JR.

City of Charleston
South Carolina

VANESSA TURNER-MAYBANK CLERK OF COUNCIL

South Carolina Clerk of Council Department July 16, 2008

Laura Cabiness, Director Department of Public Service 75 Calhoun Street Charleston, SC 29401

Re: RS2008-10: Regional Stormwater Education Strategy

Dear Ms. Cabiness:

At its July 15, 2008 meeting City Council adopted the above captioned Resolution. I am enclosing a copy of each of the following Ordinance and contract for your records:

RS2008-10: A Resolution adopting a Regional Watershed Stormwater Education Strategy

Sincerely,

Tanya J. Noonan

Assistant Clerk of Council

Enclosure: As Stated

c: Mayor Joseph P. Riley, Jr. (w/o documents)

Bob Miracle (w/o documents)

Fowler Del Porto (w/ copy of resolution)



RESOLUTION

ADOPTING A REGIONAL WATERSHED STORMWATER EDUCATION STRATEGY

WHEREAS, population growth, residential and industrial development, and the resulting changes to the landscape have led to stormwater quality and quantity concerns throughout the Ashley and Cooper river watersheds, and

WHEREAS, these impacts cannot be entirely avoided or eliminated but can be minimized; and

WHEREAS, it is currently recognized that control of stormwater quantity and quality is most effectively implemented when people and organizations understand the related causes and consequences of polluted stormwater runoff and flooding, and the actions they can take to control these, and

WHEREAS, the need arises not only from the regulatory requirements of EPA NPDES Phase II Stormwater rules, but also from the recognition that local decision makers, citizens and elected officials will require more than a rudimentary grasp of stormwater pollution and flooding concerns in order to make effective decisions that will have a positive impact on stormwater issues, and

WHEREAS, the development and implementation of effective, outcomes-based stormwater education and outreach programs will meet the related federal stormwater pollution control requirements and those of the communities they serve,

NOW, THEREFORE BE IT RESOLVED that THE CITY OF CHARLESTON fully supports the development and implementation of a regional watershed stormwater education strategy. Efforts will be overseen by the Ashley-Cooper Stormwater Education Consortium and their respective municipal and county representatives. This approach seeks to coordinate use of local resources and expertise to achieve economy of scale by jointly addressing common needs of the cities and counties and provide uniformity in educational message to enhance learning.

RESOLVED this 15th day of July, 2008, in City Council Chambers.

Joseph P. Riley, Jr. Mayor

ATTEST:

Vanessa Tumer-Maybank Clerk of Council



Carolina Clear

Storm Water Education for South Carolina

Situation

Population growth, residential and industrial development, and the resulting changes to the landscape have led to storm water quality and quantity concerns throughout South Carolina. Currently, over 40% of our lakes, rivers and creeks have been listed as impaired by the state's Department of Health and Environmental Control (DHEC). Further, it is recognized that control of storm water pollution is most effectively implemented when people and organizations understand the impact of storm water pollution, its sources, and the actions they can take to control it. To effectively manage such issues, storm water professionals are finding it necessary to develop community support through implementation of education strategies. This need arises not only from the regulatory requirements of EPA Phase II Storm Water rules, but also from the recognition that local decision makers, citizens and elected officials will require more than a rudimentary grasp of stormwater pollution concerns in order to make effective decisions that will have a positive impact on stormwater issues. Among other minimum measures, the Storm Water Phase II final ruling requires implementation of a public awareness and outreach program to educate residents about storm water runoff, as well as, develop outlets for local public participation and involvement.

Program Overview

Carolina Clear is a comprehensive education program developed by Clemson University Cooperative Extension Service (CES) to inform and educate communities about water quality, water quantity and the cumulative effects of stormwater. Carolina Clear addresses the special significance of South Carolina's water resources and the role they play in the state's economy, environmental health, and overall quality of life.

Carolina Clear is being implemented by capitalizing on the best human and institutional resources available on campus and throughout the CES organization statewide. Program delivery follows the structure set forth in the goals of Clemson's Public Service and Agriculture framework: Agrisystems and Profitability, Youth Leadership and Development, Community and Economic Development, Family and Consumer Science, and Environmental Conservation. Specific programs being delivered through Carolina Clear include:

Carolina Yards and Neighborhoods - CYN is a program designed to help individuals and families transform their yards into beautiful landscapes by adopting environmentally-friendly landscape practices that will not only conserve precious water resources and reduce pollution, but will also help save time, energy, and money.

Home-A-Syst and Coast-A-Syst — These programs consist of a series of environmental self-assessments, or checklists that make it easy for homeowners to record activities and conditions around the home that may affect water quality. By completing and acting upon these risk assessments, participants will identify environmental concerns or problems, learn how to manage their home and property more modestly, and learn to

take preventative actions to safeguard their health and the health of the coastal environment.

Nonpoint Education for Municipal Officials – SC NEMO is designed to inform and educate local officials on how local land use decisions and polluted runoff are inextricably linked, in an effort to have nonpoint source pollution considered more when land use policy decisions are made. SC NEMO was co-founded by CES in 1998 and has worked in almost all the Priority Impaired watersheds throughout South Carolina.

In addition to the numerous public involvement programs available through Carolina Clear, Clemson will also be working to create a rigorous public awareness and marketing campaign. Public service announcement on television and radio will serve as the cornerstones of this exciting new endeavor. A recent study commissioned by DHEC concluded that a vast majority of South Carolinians obtain their information from television and radio. Public awareness will be generated through creation of television and radio Public Service Announcements, creation of newspaper advertisements, use of billboard space to promote continual recognition and use of bill insert flyers where possible.

Logistics and Outcomes

Development and implementation of Carolina Clear within the regulated communities will have considerable costs. Community program development and delivery, mass media production and coordination, special mailings, e-learning implementation, as well as collection, compilation and analysis of impact data will be just some of the tasks performed by the Carolina Clear team. Because larger community participants will have a higher level of cost associated with program implementation, a sliding rate schedule has been developed and ranges from \$3,000 per year for smaller urbanized areas up to \$35,000 per year for larger communities with more than 50,000 residents.

In order to meet regulatory requirements, Clemson will provide accountability statistics for each of the activities it coordinates as part of the program. The statistics will include accomplishment indicators such as: number of educational programs and activities conducted; number of people completing educational programs; and number of people receiving information through "non-program" contacts such as telephone, office, visits, web-site contacts, visual and print media.

The effects of polluted storm water runoff are subtle and not well understood by much of the public. It may be difficult for the myriad of citizens and public officials to understand how their actions can all add up and lead to degraded local rivers and lakes. But research shows that once people understand the consequences of their actions, they are more receptive to acquiring knowledge and skills to change their behavior. Carolina Clear is meeting a demonstrated need for the citizens of South Carolina.

For More Information: Cal Sawyer, Extension Water Quality Coordinator, 233 McAdams Hall, Clemson University, Clemson, SC 29634. (Phone) 864/656.4072. (Email) calvins@clemson.edu

Clemson University - Carolina Clear Storm Water Education Program



Carolina Clear Rate Schedule

Carolina Clear Rates

Carolina Clear is a comprehensive program developed by Clemson University Cooperative Extension Service to inform and educate communities about water quality and the cumulative effects of stormwater. Carolina Clear addresses the special significance of South Carolina's water resources and the role they play in the state's economy, environmental health, and overall quality of life.

Development and implementation of Carolina Clear within regulated MS4s will have considerable costs. Community program development and delivery, mass media production and coordination, as well as collection, compilation and analysis of impact data will be just some of the tasks performed by the Carolina Clear team.

Because larger MS4s will have a higher level of cost associated with program implementation, a sliding rate schedule has been developed based on urbanized area (UA) listed in the 2000 US Census.

Rate Schedule

<u> Urbanized Area Population from 2000 Census</u>	Annual Rate	
UA Population < 10,000	\$3,000	
20,000 > UA Population > 10,000	\$8,000	
35,000 > UA Population > 20,000	\$15,000	
50,000 > UA Population > 35,000	\$25,000	
UA Population > 50,000	\$35,000	

Storm Water Public Education and Outreach Outline

PREFACE

Population growth, residential and industrial development, and the resulting changes to the landscape have led to storm water quality and quantity concerns throughout South Carolina. Further, it is currently recognized that control of storm water pollution is most effectively implemented when people and organizations understand the impact of storm water pollution, its sources, and the actions they can take to control it. To effectively manage such issues, storm water professionals are finding it necessary to develop community support through implementation of education strategies. This need arises not only from the regulatory requirements of EPA Phase II Stormwater rules, but also from the recognition that local decision makers, citizens and elected officials will require more than a rudimentary grasp of stormwater pollution concerns in order to make effective decisions that will have a positive impact on stormwater issues.

In order to address these educational needs	(city/county) and the
Clemson University Cooperative Extension Service	will develop and implement effective
outcomes-based stormwater education and outreach	n programs that will not only meet the federal
requirements, but also the needs of the community	they serve.

RATIONALE

The effects of polluted storm water runoff are subtle and not well understood by much of the public. Pollutants are often not highly visible and come from a variety of diffuse sources. It may be difficult for the myriad of citizens and public officials to understand how their actions can all add up and lead to degraded local rivers and lakes. But research shows that once people understand the consequences of their actions, they are more receptive to acquiring knowledge and skills to change their behavior.

Minimum Control Measure	Best Management Practice	Target Audience	Measurable Goal	Schedule*
Involvement	Establish Regional Storm Water Education Round Table	 Staff Elected and Appointed Officials General Public 	 Regional Plan Number of published articles Press conference 	Year I
Involvement	Community storm water seminars and public education programs	General Public Elected and Appointed Officials	Number of people indicating increased knowledge Evaluation results	Year 1-2

Minimum Control Measure	Best Management Practice	Target Audience	Measurable Goal	Schedule
Education	Storm water press releases and news articles	General Public	Circulation numbers Number of press releases issued	Year 1-2
Involvement	Carolina Yards and Neighborhoods Program	Homeowners Renters Landscapers	Number of people participating Number of people indicating increased knowledge Evaluation results	Year 1-2
Involvement	Specialized targeted storm water programs for specific audiences such as those who are underrepresented or industry-specific	Minorities Rural Homeowners Business	Number of people participating Number of people indicating increased knowledge Evaluation results	Year 2-3
Involvement	Targeted programs directed at a young audience such as Adopt- A-Watershed Storm Drain Stenciling 4H2O Pontoon Classroom	K-12 Youth	Number of people participating Number of people indicating increased knowledge Evaluation results	Year 2-3
Education	Web Page development and E-Learning	Internet usersYouth	Number of internet hits Number of visitors indicating increased knowledge Pre- and Post-testing	Year 1-2
Education	Television storm water PSAs	General Public	Nielsen averages	Year 2
Education	Radio storm water PSAs	General Public	Arbitron avaregaes	Year I
Education	Television and radio special programs including, but not limited to: Your Day Making It Grow	General Public	Nielsen numbers	Year 1-2

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PROGRAM EVALUATION

Clemson will provide accountability statistics for each of the activities. The statistics will include the following accomplishment indicators.

- Number of educational programs and activities conducted.
- Number of people completing educational programs.
- Number of people receiving information through "non-program" contacts such as telephone, office, visits, web-site contacts, visual and print media.

ACSEC Education Plan Discussion

Target Audience	Target Pollutants	Programs	Education Provider
General Public	All	Website	Clemson
	All	PSA's	Clemson
	All	Festivals/Fairs	Clemson+
	Litter	Beach Sweep/River Sweep	SC DNR/SC Sea Grant
		Signs (?)	
Target Audience	Target Pollutants	Programs	Education Provider
Developers/ Engineers/ Construction	Sediment	CEPSCI CSPR	Clemson
		1.	

Target Audience	Target Pollutants	Programs	Education Provider
Homeowners/ Property Owners	Nutrients/ Hazardous Mat/ Sediment/ Fecal Coliform	Coast-A-Syst Carolina Yards and Neighborhoods	Clemson
		113 Calhoun St.	Clemson/SC Sea Grant
Target Audience	Target Pollutants	Programs	Education Provider
Youth (K-12)/ Teachers	All	4-H ₂ O Online Curriculum (proposed) Water Monitoring	Clemson Group Effort- Clemson, School Systems, Michaux, Lowcountry Earth Force, etc. Michaux et al.
		In-class presentations	Clemson, Soil & Water Cons., DNR
		Teacher Workshops	Group Effort

Target Audience	Target Pollutants	Programs	Education Provider
Coastal Resource Managers	All	Individual Workshops	Clemson/ACE CTP
Target Audience	Target Pollutants	Programs	Education Provider
Municipal Officials	All	SC NEMO	SC Sea Grant/ Clemson
		Individual Workshops (BMP's, Regulations, etc)	Clemson/SC Sea Grant/ACE CTP





APP 2 7 7008

CLERK OF COUNCIL

JOSEPH P. RILEY, JR. MAYOR

South Carolina Clerk of Council Department April 23, 2008

Mr. Steve Bedard, CFO City of Charleston 116 Meeting Street Charleston, SC 29401

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Assistant Clerk of Council

Enclosure: As Stated

c: Mayor Joseph P. Riley, Jr. (w/o documents)

Bob Miracle (w/o documents)
Laura Cabiness (w/ one copy)



Memorandum of Understanding

between

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John Kelly, Vice President

Clemson University PSA

Date

City of Chiname, Title)

Date





JOSEPH P. RILEY, JR.

City of Charleston

South Carolina

VANESSA TURNER-MAYBANK CLERK OF COUNCIL

South Carolina Clerk of Council Department July 16, 2008

Laura Cabiness, Director Department of Public Service 75 Calhoun Street Charleston, SC 29401

Re: RS2008-10: Regional Stormwater Education Strategy

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Sincerely,

Tanya J. Noonan

Assistant Clerk of Council

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Enclosure: As Stated

c: Mayor Joseph P. Riley, Jr. (w/o documents)

Bob Miracle (w/o documents)

Fowler Del Porto (w/ copy of resolution)



RESOLUTION

ADOPTING A REGIONAL WATERSHED STORMWATER EDUCATION STRATEGY

WHEREAS, population growth, residential and industrial development, and the resulting changes to the landscape have led to stormwater quality and quantity concerns throughout the Ashley and Cooper river watersheds, and

WHEREAS, these impacts cannot be entirely avoided or eliminated but can be minimized; and

WHEREAS, it is currently recognized that control of stormwater quantity and quality is most effectively implemented when people and organizations understand the related causes and consequences of polluted stormwater runoff and flooding, and the actions they can take to control these, and

WHEREAS, the need arises not only from the regulatory requirements of EPA NPDES Phase II Stormwater rules, but also from the recognition that local decision makers, citizens and elected officials will require more than a rudimentary grasp of stormwater pollution and flooding concerns in order to make effective decisions that will have a positive impact on stormwater issues, and

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RESOLVED this 540 day of July, 2008, in City Council Chambers.

Joseph P. Riley, Jr. Mayor

ATTEST:

Vanessa Tumer-Maybank Clerk of Council